



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,097	02/02/2004	Carol Ann Wedding	CA 020204	5763

7590 02/19/2008
DONALD K. WEDDING
4533 WEDGEWOOD COURT
TOLEDO, OH 43615-1628

EXAMINER

SHAPIRO, LEONID

ART UNIT	PAPER NUMBER
----------	--------------

2629

MAIL DATE	DELIVERY MODE
-----------	---------------

02/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/768,097	Applicant(s) WEDDING ET AL.	
	Examiner Leonid Shapiro	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) 19-44 and 47-50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 45-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. Claim 19-44, 47-50 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected claim, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12/10/07 and 09/06/07.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Velayudhan et al. (6,985,125 B2) in view of Shigeta et al. (6,646,625 B1).

As to claim 1, Velayudhan et al. teaches a method for addressing and sustaining a PDP wherein an addressing voltage is applied to at least one section S1 of the PDP, while at least one other section S2 of the PDP is being simultaneously sustained (col. 1, lines 16-27), the improvement wherein visual artifacts between the sections are reduced (col. 12, lines 15-27).

Velayudhan et al. does not disclose means of gamma corrected subfields with sustains timed to balance the center of light between S1 and S2.

Shigeta et al. teaches means of gamma corrected subfields (fig. 4, items SF1-SF8, col. 8, lines 36-40) with sustains timed to balance the center of light (fig. 26, items SF1-SF8, from col. 8, line 61 to col. 10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Shigeta et al. into Velayudhan et al. system in order to improve the display quality (col. 2, lines 12-16 in the Shigeta et al. reference).

As to claims 2 Velayudhan et al. teaches a method for operating a surface discharge AC plasma display having row scan, bulk sustain, and column data electrodes (fig. 1, items 1218A-18B, col. 8, lines 33-50), the improvement which comprises addressing at least one section S1 of the PDP, while another section S2 of the PDP is being simultaneously sustained (col. 1, lines 16-27), each section having a predetermined number of bulk sustain electrodes and row scan electrodes, wherein visual artifacts between the sections are reduced (col.12, lines 15-27).

Velayudhan et al. does not disclose means of gamma corrected subfields with sustains timed to balance the center of light between S1 and S2.

Shigeta et al. teaches means of gamma corrected subfields (fig. 4, items SF1-SF8, col. 8, lines 36-40) with sustains timed to balance the center of light (fig. 26, items SF1-SF8, from col. 8, line 61 to col. 10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Shigeta et al. into Velayudhan et al. system in order to improve the display quality (col. 2, lines 12-16 in the Shigeta et al. reference).

As to claims 3,6, Velayudhan et al. teaches subsequently section S2 is addressed while section S1 is being sustained (fig. 3, items S1-S2, col. 8, lines 19-21).

As to claims 4-5, 7-8 it generally considered to be within the ordinary skill in the art to adjust, vary, select or optimize the numerical parameters or values of any system absent of showing criticality of in a particular recited value. Thus, it would have been obvious to one of ordinary skill in the art at the time of invention to interchange different number of sustain per subfield, number of scan electrodes or resolution. Such a limitation would have been considered as obvious variation on the matter of number of sustain per subfield, number of scan electrodes or resolution which fails patentably distinguish over the prior art of Bowman et al. and Yates et al. and Jones. In re Rose, 105 USPQ 237 (CCPA 1955).

As to claim 9, Shigeta et al. teaches the method for the reduction of motion and visual artifacts includes the writing of pixels followed by selective erase (fig. 5, col. 8, lines 63-66).

As to claims 10-11,13-14,17-18 Shigeta et al. teaches a reset before addressing (fig. 22, col. 17, lines 18-58).

As to claims 12,15-16 Velayudhan et al. teaches AC plasma display having row scan, bulk sustain, and column data electrodes (fig. 1, items 1218A-18B, col. 8, lines 33-50), said display being divided into a plurality of sections S1,S2,Sn, each section having a predetermined number of bulk sustain electrodes and row scan electrodes (fig. 5, items 61,65), and electronic circuitry for addressing at least one section S1 of the PDP, while

another section S2 of the PDP is being simultaneously sustained (col. 1, lines 16-27), wherein visual artifacts between the sections are reduced (col.12, lines 15-27).

Velayudhan et al. does not disclose means of gamma corrected subfields with sustains timed to balance the center of light between S1 and S2.

Shigeta et al. teaches means of gamma corrected subfields (fig. 4, items SF1-SF8, col. 8, lines 36-40) with sustains timed to balance the center of light (fig. 26, items SF1-SF8, from col. 8, line 61 to col. 10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Shigeta et al. into Velayudhan et al. system in order to improve the display quality (col. 2, lines 12-16 in the Shigeta et al. reference).

3. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Velayudhan et al. in view of Sano et al. (7,078,865 B2).

As to claim 1, Velayudhan et al. teaches a method for addressing and sustaining a PDP (SAS), wherein an addressing voltage is applied to at least one section S1 of the PDP, while at least one other section S2 of the PDP is being simultaneously sustained (col. 1, lines 16-27), the improvement wherein visual artifacts between the sections are reduced (col.12, lines 15-27).

Velayudhan et al. does not disclose integrated circuit for processing digital signals to a display.

Sano et al. teaches integrated circuit for processing digital signals to a display (figs 22,24, col. 176, lines 25-42).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Sano et al. into Velayudhan et al. system in order to reduce the number of driving ICs (col. 17, lines 28-33 in the Sano et al. reference).

4. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Velayudhan et al. and Sano et al. in view of Shigeta et al.

Velayudhan et al. and Sano et al. do not disclose the center of light method.

Shigeta et al. teaches means with sustains timed to balance the center of light (fig. 26, items SF1-SF8, from col. 8, line 61 to col. 10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Shigeta et al. into Velayudhan et al. and Sano et al. system in order to improve the display quality (col. 2, lines 12-16 in the Shigeta et al. reference).

Telephone Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/768,097
Art Unit: 2629

Page 7

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS
02.16.08



RICHARD A. HERTZ
USPTO CUSTOMER SERVICE REPRESENTATIVE